

ABSTRACT

It is intended to provide a multi-layered structure for fabricating an ohmic electrode for III-V compound semiconductors such as GaAs semiconductors which has practically satisfactory characteristics and an ohmic electrode obtained by using it. On a III-V compound semiconductor substrate such as an n⁺-type GaAs substrate, a non-single crystal semiconductor layer such as a non-single crystal In_{0.7}Ga_{0.3}As layer, a metal film such as a Ni film, a metal nitride film such as a WN film and a refractory metal film such as a W film are sequentially stacked by sputtering, etc. and subsequently patterned by lift-off, etc. to make a multi-layered structure for fabricating ohmic electrodes. The structure is annealed at 500 to 600°C, e.g. 550°C for one second by, e.g. RTA method to fabricate an ohmic electrode.